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## How to Cold Stratify *Asclepias fascicularis* Seeds

—Mary Duffy, Earth Discovery Institute and San Diego Pollinator Alliance

Narrowleaf milkweed, *Asclepias fascicularis*, seeds can be very slow to **germinate** and require time and patience to sprout. For best results, place seed mixed with moist, sterile media in a sealed plastic bag into a refrigerator for at least 30 days prior to planting. This is called **cold stratification** and is best done starting in November/December so that the timing mimics overwintering in nature. Heat stratification can also be done, and stratification of milkweed seeds is not absolutely necessary, but it does increase germination rates.

### Directions for Cold Stratification:

- Place a cup of vermiculite, sand or other sterile media (note: this can be as simple as putting seeds between a moist paper towel) in a gallon size zip-lock bag.
- Moisten the vermiculite or *other*—you should not be able to squeeze any water out of the media.
- Combine seeds with the vermiculite (media) by placing seeds (up to 40) in the plastic bag and shake.
- Seal the plastic bag and place it into a refrigerator (about 40°F) for at least 30 days.
- Do not remove seeds until you are ready to plant, whether direct to soil or in pot.
- You can also take the bag out of the refrigerator, place it in a window where it will get light and warm up. When you see the seeds start to germinate (grow), you can sow them directly to ground or into a pot.

### When you are ready to plant:

- Find or create a “pot” to start your milkweed seeds in. This can be any small container, as long as it has adequate drainage (holes in bottom) and can retain its form after being wet for many months.
- Fill the pot with potting soil or other soil that is not hydrophobic—tending to repel water.
- Thoroughly wet the soil.
- With your pinky or the eraser end of a pencil, push a hole in the soil about 1/2 inch deep.
- Plant 3 to 5 seeds in the hole.
- Place the pot in a sunny, warm place and water them every two or three days for as long as they are in small pots—the soil must stay moist. You can also water them from underneath by placing the pots in a pan and filling it with about a half inch of water whenever it is dry. A top-watering mister system is often used by nurseries. The goal is to keep the soil moist but not over saturated.
- You have to be patient and diligent. Milkweed seeds won’t start growing until it gets warm, they can sit in the soil for months before sprouting. The first thing you will see when they sprout are two round cotyledons—first leaves.

After about two months, your milkweed plant will be big enough for caterpillars to eat. Monarch caterpillars are eating machines; each one can mow through about 200 milkweed leaves before enclosing into a chrysalis. You can transfer your milkweed outside, into the ground, or into a larger pot and set it where you can watch for monarchs and other pollinators. If you want your narrowleaf milkweed to spread by roots—rhizomes—plant it in the ground, a raised bed, or a 5-gallon pot. Note: milkweed seldom flowers or produces seeds in its first year. Although it will die back in winter, it is a perennial, and will grow back from its root stock annually if taken care of.

Note: Milkweed plants are food for caterpillars but poisonous to humans. **Do not get milkweed sap on your skin or in your eyes.** Milkweed is also toxic if eaten, so keep plants away from young children and pets.